

Application No. 10/074,466
Amendment date November 5, 2003
Response to Final Office Action date September 15, 2002

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listing, of claims in the application.

1. (Currently Amended) An illumination device comprising:
a light generating means for generating a light;
a first light guiding means including a first portion through which the light is incident and a second portion from which the light is emitted; and
a second light guiding means including opposite first and second side portions, at least one of which is adjacent to the light generating means, a light projecting portion adjacent to the first portion of the first light guiding means and a light reflecting portion having a distance from the light projecting portion, the distance between the light projecting portion and the light reflecting portion becoming narrow as an amount of a light flux emitted from the light generating means decreases,

wherein widths of the first and second side portions are defined according to an amount of the light input to the first and second side portions, ~~respectfully~~ respectively.

2. (Original) The illumination device as claimed in claim 1, wherein the light generating means includes at least one light source.

3. (Original) The illumination device as claimed in claim 2, wherein the light source is a point-shaped light source.

4. (Original) The illumination device as claimed in claim 1, wherein the light reflecting portion includes a concave section.

5. (Previously Presented) The illumination device as claimed in claim 4, wherein the concave section has a V shape inclined from opposite side ends of the light reflecting portion adjacent to the first and second side portions.

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6. (Previously Presented) The illumination device as claimed in claim 4, wherein the concave section has a bottom portion, and a position of the bottom portion is defined by a following equation;

$x : y = w1 : w2$, wherein, x is a linear distance from the first side portion to the bottom portion, y is a linear distance from the second side portion to the bottom portion, $x + y$ is a linear distance from the first side portion to the second side portion, $w1$ is the width of the first side portion, and $w2$ is the width of the second side portion.

7. (Previously Presented) The illumination device as claimed in claim 6, wherein a value of x is substantially equal to a value of y .

8. (Original) The illumination device as claimed in claim 1, wherein the light generating means includes at least one first light source adjacent to the first side portion of the second light guiding means and at least one second light source adjacent to the second side portion of the second light guiding means.

9. (Previously Presented) The illumination device as claimed in claim 8, wherein a number of the first light sources is the same as a number of the second light sources.

10. (Previously Presented) The illumination device as claimed in claim 8, wherein a first number of the first light sources is different from a second number of the second light sources.

11. (Previously Presented) The illumination device as claimed in claim 10, wherein widths of the first and second side portions are defined by a following equation;

$w1 : w2 = n1 : n2$, wherein $w1$ is the width of the first side portion, and $w2$ is the width of the second side portion, $n1$ is the first number of the first light sources, and $n2$ is the second number of the second light sources.

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12. (Original) The illumination device as claimed in claim 6, wherein a linear distance between the bottom portion and the light projecting portion is smaller than a smaller width of the widths of the first and second side portions.

13. (Original) The illumination device as claimed in claim 4, wherein the concave section comprises a plurality of groove patterns.

14. (Previously Presented) The illumination device as claimed in claim 1, wherein the second light guiding means has a light scattering member which uniformly diffuses the light incident through the first and second side portions and uniformly distributes a light flux projected through the light projecting portion.

15. (Previously Presented) An illumination device comprising:
a light generating means for generating a light;
a first light guiding means including a first portion through which the light is incident and a second portion from which the light is emitted; and

a second light guiding means including opposite first and second side portions, at least one of which is adjacent to the light generating means, a light projecting portion adjacent to the first portion of the first light guiding means and a light reflecting portion opposite the light projecting portion, the light reflecting portion having a concave form,

wherein the light generating means includes at least one first light source adjacent to the first side portion of the second light guiding means and at least one second light source adjacent to the second side portion of the second light guiding means, a first number of the first light sources being different from a second number of the second light sources; and

wherein $w1 : w2 = n1 : n2$, wherein $w1$ is a width of the first side portion, and $w2$ is a width of the second side portion, $n1$ is the first number of the first light sources, and $n2$ is the second number of the second light sources.

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16. (Previously Presented) The illumination device as claimed in claim 15, wherein the light reflecting portion has a V shape inclined toward the light projecting portion from opposite side ends of the light reflecting portion adjacent to the first and second side portions.

17. (Currently Amended) A reflection type liquid crystal display device including a liquid crystal display panel for displaying an image, and an illumination device disposed in a front of the liquid crystal display panel, the illumination device comprising:

a light generating means for generating a light;

a first light guiding means including a first portion through which the light is incident and a second portion from which the light is emitted; and

a second light guiding means including opposite first and second side portions, at least one of which is adjacent to the light generating means, a light projecting portion adjacent to the first portion of the first light guiding means and a light reflecting portion having a distance from the light projecting portion, the distance between the light projecting portion and the light reflecting portion becoming narrow as an amount of light flux emitted from the light generating means decreases,

wherein widths of the first and second side portions are defined according to an amount of the light input to the first and second side portions, ~~respectfully~~respectively.

18. (Original) The reflection type liquid crystal display device as claimed in claim 17, wherein the light generating means includes at least one light source.

19. (Original) The reflection type liquid crystal display device as claimed in claim 18, wherein the at least one light source is a point-shaped light source.

20. (Original) The reflection type liquid crystal display device as claimed in claim 17, wherein the light reflecting portion includes a concave section towards the light projecting surface.

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21. (Previously Presented) The reflection type liquid crystal display device as claimed in claim 20, wherein the concave section has a V shape inclined from opposite side ends of the reflecting portion adjacent to the first and second side portions.

22. (Previously Presented) The reflection type liquid crystal display device as claimed in claim 20, wherein the concave section has a bottom portion, and a position of the bottom portion is defined by a following equation;

$$x : y = w1 : w2,$$

wherein, x is a linear distance from the first side portion to the bottom portion, y is a linear distance from the second side portion to the bottom portion, x + y is a linear distance from the first side portion to the second side portion, w1 is the width of the first side portion, and w2 is the width of the second side portion.

23. (Original) The reflection type liquid crystal display device as claimed in claim 22, wherein a linear distance between the bottom portion and the light projecting portion is smaller than a smaller width of the widths of the first and second side portions.

24. (Original) The reflection type liquid crystal display device as claimed in claim 20, wherein the concave section comprises a plurality of groove patterns.

25. (Previously Presented) The reflection type liquid crystal display device as claimed in claim 17, wherein the second light guiding means comprises a light scattering member which uniformly diffuses the light incident through the first and second side portions and uniformly distributes a light flux projected through the light projecting portion.

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26. (Previously Presented) The reflection type liquid crystal display device as claimed in claim 17, wherein the amount of the light input to the first side portion is different from the amount of the light input to the second side portion, the widths of the first and second side portions are defined by a following equation:

$w_1 : w_2 = n_1 : n_2$, wherein w_1 is the width of the first side portion, and w_2 is the width of the second side portion, n_1 is the amount of the light input to the first side portion, and n_2 is the amount of the light to the second side portion.